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EXAMINER
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Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 07-01)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _11 April 2003_ .

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-24 and 36-59_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-24 and 36-59_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____ .

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .

4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____ .

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set

forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this

application is eligible for continued examination under 37 CFR 1.114, and the fee set

forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action

has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on April

11, 2003 has been entered. Claims 1-24 and 36-59 are pending.

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

2.   Claims 11-24 and 36-59 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Walker et al. in view of Bushey et al. (U.S. P.N. 6,389,400).

(Amended)   As per claims 1 and 36, Walker et al. disclose a method of selecting a

resource for a work item, and a computer-readable medium containing instructions

which, when executed in a computer, cause the computer to perform selection of a

resource for a work item, comprising:

determining available resources that possess skills needed by the work item (see

column 1, lines 61-62, column 2, lines 8-12, and column 4, lines 8-23, there will be

forecasts predicting when the resources will become available, when the resources, or technicians, become available they will be assigned work items, or jobs, only resources with the necessary skills will be matched with the work item); and

for each of the determined resources, determining a business value of having the resource service the work item, the business value being a measure of qualification of the resource for servicing the work item based on skills of the resource and skill requirements of the work item (see column 1, lines 65-67, through column 2, lines 1-12, and column 3, lines 1-16, the business value is determined by finding the amount of time it would take the resource, or technician, to complete the work item, or job, the business value is a measure of the qualification of the resource and the work item based on skills and requirements).

Walker et al. did not explicitly disclose for each of the determined resources, determining a value to the resource of servicing the work item, the value to the resource being a measure of how the resource is spending time compared with other resources and goals to the individual resource; and selecting a determined resource that has a best combined value of the business value and the value to the resource, to serve the work item. However, Bushey et al. explicitly teaches having system that matches the resource best suited to handle a work item or call from a customer (see abstract). Bushey et al. discloses placing a high value on finding a resource that has the skills and meets the needs of a customer (see column 2, lines 34-37). Bushey et al. also teaches incorporating the goals of a resource by weighing attributes to create an agent model (see column 4, lines 1-3). Bushey at al. then uses the agent's model and matches it with

a customer model to determine the higher match score Bushey et al. discloses selecting

a resource that has a best combined value of the business value and the value to the

resource, to serve the work item, or call as it is first determined if the best resource is

available and then continues down the list (see column 4, lines 47-67, though column 5,

lines 1-25). Therefore, it would have been obvious to one of ordinary skill in the art at

the time of the invention to modify the disclosure of Walker et al. to include creating a

value to the resource of servicing the work item in the same conventional manner as

disclosed by Bushey et al. because this would allow employees to use and develop their

skills in their jobs which increases their employee satisfaction which leads to satisfied

customers, higher productivity, and more profit for the company.

(Amended)   As per claim 28, Walker discloses an apparatus comprising a processor

for selecting a resource for a work item, comprising:

Means for determining available resources that possess skills needed by the

work item (see column 1, lines 61-62, column 2, lines 8-12, and column 4, lines 8-23,

there will be forecasts predicting when the resources will become available, when the

resources, or technicians, become available they will be assigned work items, or jobs,

only resources with the necessary skills will be matched with the work item); and

Means for determining, for each of the determined resources, a value to the

resource of serving the work item, the business value being a measure of qualification

of the resource for servicing the work item based on skills of the resource and skills of

the resource and skill requirements of the work item (see column 1, lines 65-67, through

column 2, lines 1-12, and column 3, lines 1-16, the business value is determined by

finding the amount of time it would take the resource, or technician, to complete the

work item, or job, the business value is a measure of the qualification of the resource

and the work item based on skills and requirements).

Walker et al. did not explicitly disclose means for each of the determined

resources, a value to the resource of servicing the work item, the value to the resource

being a measure of how the resource is spending time compared with the other

resources and goals of the individual resource; and means for selecting a determined

resource that has a best combined value of the business value and the value to the

resource, to serve the work item. However, Bushey et al. explicitly teaches having

system that matches the resource best suited to handle a work item or call from a

customer (see abstract). Bushey et al. discloses placing a high value on finding a

resource that has the skills and meets the needs of a customer (see column 2, lines 34-

37). Bushey et al. also teaches incorporating the goals of a resource by weighing

attributes to create an agent model (see column 4, lines 1-3). Bushey at al. then uses

the agent's model and matches it with a customer model to determine the higher match

score Bushey et al. discloses selecting a resource that has a best combined value of

the business value and the value to the resource, to serve the work item, or call as it is

first determined if the best resource is available and then continues down the list (see

column 4, lines 47-67, though column 5, lines 1-25). Therefore, it would have been

obvious to one of ordinary skill in the art at the time of the invention to modify the

disclosure of Walker et al. to include creating a value to the resource of servicing the

work item in the same conventional manner as disclosed by Bushey et al. because this would allow employees to use and develop their skills in their jobs which increases their employee satisfaction which leads to satisfied customers, higher productivity, and more profit for the company.

(Amended) As per claim 29, Walker discloses an apparatus for selecting a resource for a work item, comprising:

Means for determining available resources that possess skills needed by the work item (see column 1, lines 61-62, column 2, lines 8-12, and column 4, lines 8-23, there will be forecasts predicting when the resources will become available, when the resources, or technicians, become available they will be assigned work items, or jobs, only resources with the necessary skills will be matched with the work item); and

Means for determining, for each of the determined resources, a business value comprising a sum across all skills of a product of a skill level of the resource in the skill and a skill weight of the work item for the skill (see column 7, lines 11-24, every resource, or technician, contains a skill level and is weighted according to this skill level when combined with a work item, or job);

Walker et al. does not explicitly disclose a means for determining, for each of the determined resources, a resource treatment value, the resource treatment value being a measure of how the resource is spending time compared with the other resources and goals of the individual resource, the resource treatment value comprising a sum across all resource treatments of a product of a value of the resource for the resource

treatment; and a weight of the work item for the resource treatment; and a means for selecting a determined resource that has a best combined score of its business value and its resource treatment value, to serve the work item. However, Bushey et al. explicitly teaches having system that matches the resource best suited to handle a work item or call from a customer (see abstract). Bushey et al. discloses placing a high value on finding a resource that has the skills and meets the needs of a customer (see column 2, lines 34-37). Bushey et al. also teaches incorporating the goals of a resource by weighing attributes to create an agent model (see column 4, lines 1-3). Bushey at al. then uses the agent's model and matches it with a customer model to determine the higher match score Bushey et al. discloses selecting a resource that has a best combined value of the business value and the value to the resource, to serve the work item, or call as it is first determined if the best resource is available and then continues down the list (see column 4, lines 47-67, though column 5, lines 1-25). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the disclosure of Walker et al. to include creating a value to the resource of servicing the work item in the same conventional manner as disclosed by Bushey et al. because this would allow employees to use and develop their skills in their jobs which increases their employee satisfaction which leads to satisfied customers, higher productivity, and more profit for the company.

(Amended)   As per claim 32, Walker discloses an arrangement for selecting a resource for a work item, comprising:

An effector of determining available resources that possess skills needed by the work item (see column 1, lines 61-62, column 2, lines 8-12, and column 4, lines 8-23, there will be forecasts predicting when the resources will become available, when the resources, or technicians, become available they will be assigned work items, or jobs, only resources with the necessary skills will be matched with the work item); and

An effector of determining, for each of the determined resources, a business value to the resource of serving the work item, the value to the resource being a measure of how the resource is spending time compared with other resources and goals of the individual resource (see column 1, lines 65-67, through column 2, lines 1-12, and column 3, lines 1-16, the business value is determined by finding the amount of time it would take the resource, or technician, to complete the work item, or job, the business value is a measure of the qualification of the resource and the work item based on skills and requirements).

Walker et al. did not explicitly disclose an effector of determining, for each of the determined resources, an effector of determining, a value to the resource of servicing the work item, the value to the resource being a measure of how the resource is spending time compared with the other resources and goals of the individual resource; and an effector of selecting a determined resource that has a best combined value of the business value and the value to the resource, to serve the work item. However, Bushey et al. explicitly teaches having system that matches the resource best suited to handle a work item or call from a customer (see abstract). Bushey et al. discloses placing a high value on finding a resource that has the skills and meets the needs of a

customer (see column 2, lines 34-37). Bushey et al. also teaches incorporating the

goals of a resource by weighing attributes to create an agent model (see column 4, lines

1-3). Bushey at al. then uses the agent's model and matches it with a customer model

to determine the higher match score Bushey et al. discloses selecting a resource that

has a best combined value of the business value and the value to the resource, to serve

the work item, or call as it is first determined if the best resource is available and then

continues down the list (see column 4, lines 47-67, though column 5, lines 1-25).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the

invention to modify the disclosure of Walker et al. to include creating a value to the

resource of servicing the work item in the same conventional manner as disclosed by

Bushey et al. because this would allow employees to use and develop their skills in their

jobs which increases their employee satisfaction which leads to satisfied customers,

higher productivity, and more profit for the company.

(Amended)   As per claim 33, Walker et al. disclose an arrangement for selecting a

resource for a work item, comprising:

An effector of determining available resources that possess skills needed by the

work item (see column 1, lines 61-62, column 2, lines 8-12, and column 4, lines 8-23,

there will be forecasts predicting when the resources will become available, when the

resources, or technicians, become available they will be assigned work items, or jobs,

only resources with the necessary skills will be matched with the work item); and

An effector of determining, for each of the determined resources, a business

value comprising a sum across all skills of a product of a skill level of the resource in the

skill and a skill weight of the work item for the skill (see column 7, lines 11-24, every

resource, or technician, contains a skill level and is weighted according to this skill level

when combined with a work item, or job);

Walker et al. does not explicitly disclose an effector of determining, for each of

the determined resources, a resource treatment value, the resource treatment value

being a measure of how the resource is spending time compared with other resources

and goals of the individual resource, the treatment value comprising a sum across all

resource treatments of a product of a value of the resource for the resource treatment

and a weight of the work item for the resource treatment; and an effector of selecting a

determined resource that has a best combined score of its business value and its

resource treatment value, to serve the work item. However, Bushey et al. explicitly

teaches having system that matches the resource best suited to handle a work item or

call from a customer (see abstract). Bushey et al. discloses placing a high value on

finding a resource that has the skills and meets the needs of a customer (see column 2,

lines 34-37). Bushey et al. also teaches incorporating the goals of a resource by

weighing attributes to create an agent model (see column 4, lines 1-3). Bushey at al.

then uses the agent's model and matches it with a customer model to determine the

higher match score Bushey et al. discloses selecting a resource that has a best

combined value of the business value and the value to the resource, to serve the work

item, or call as it is first determined if the best resource is available and then continues

down the list (see column 4, lines 47-67, though column 5, lines 1-25). Therefore, it

would have been obvious to one of ordinary skill in the art at the time of the invention to

modify the disclosure of Walker et al. to include creating a value to the resource of

servicing the work item in the same conventional manner as disclosed by Bushey et al.

because this would allow employees to use and develop their skills in their jobs which

increases their employee satisfaction which leads to satisfied customers, higher

productivity, and more profit for the company.

As per claims 2, and 37, Walker et al. disclose all the limitations of claims 1, and

36 wherein determining a business value comprises:

determining the business value weighted by a business value weight

corresponding to the work item (see column 7, lines 18-24, a weight is considered when

determining the value for the work item).

Walker et al. does not explicitly disclose determining a value to the resource

comprises determining the value to the resource weighted by a resource value weight

corresponding to the work item and selecting comprises selecting a determined

resource that has a best combined value of the weighted business value and the

weighted value to the resource. However, Bushey et al. teaches allowing employees to

preference their assignments through the use of weights in creating the agent model

(see column 4, lines 1-3). It would have been obvious to one of ordinary skill in the art at

the time of the invention to modify the disclosure by Walker et al. to include creating a

value to the resource weighted by a resource value weight corresponding to the work

item, as disclosed by Bushey et al., because this would allow employees to have weighted preferences in the jobs they work increasing their employee satisfaction. By creating a value that comprises selecting a determined resource that has a best combined value of the weighted business value and the weighted value to the resource, the company many increase profit for the company through higher employee and customer satisfaction.

As per claims 3 and 38, Walker et al. disclose all the limitations of the method of claims 2 and 37 wherein: determining a business value comprises determining a weighted business value as a product of

(a) the business value weight corresponding to the work item (see column 7, lines 11-24, the weight corresponds to the work item); and

(b) a sum of products of a level of each said needed skill of the resource and a weight of said needed skill of the work item (see column 7, lines 11-24, a cost will be weighted for a work item in which the resource needs a particular skill).

Walker et al. does disclose creating a weight corresponding to a work item (see column 7, lines 11-24). However, Walker et al. does not explicitly teach determining a value to the resource comprises determining a weighted resource treatment value as a products of (c) a resource treatment weight corresponding to the work item and (d) a sum of products of each treatment of the resource and a weight of the treatment of the resource. Bushey et al. teaches allowing employees to preference attributes using weights to create the agent model (see column 4, lines 1-3). It would have been obvious

to one of ordinary skill in the art at the time of the invention to modify the disclosure by
Walker et al. to create a weighted value for the technicians as a product of the weighted
technician's preferences and a sum of products of each treatment of the resource and a
weight of the treatment of the resource, as taught by Bushey et al., since this would
allow employees to have weighted preferences in the jobs they work increasing their
employee satisfaction. By creating weighted resource treatment value, the company
many increase productivity and profit for the company.

As per claims 4, and 39, Walker et al. disclose all the limitations of claims 3, and
38. Walker et al. does disclose scaling business values (see column 7, lines 11-24, the
weights are used to scale values). Walker et al. does not explicitly disclose the sum of
the products being scaled. Bushey et al. teaches allowing employees to preference
attributes using weights to create the agent model (see column 4, lines 1-3). The
weights created by Bushey et al. are scalable. Bushey et al. also teaches using the
agent model and the customer model to determine an optimal match (see column 4,
lines 10-33). Therefore, it would have been obvious to one of ordinary skill in the art at
the time of the invention to modify the disclosure by Walker et al. to scale the sum of the
products, as taught by Bushey et al., since this would allow one to incorporate both the
business value of having the resource service the work item and the value to the
resource of servicing the work item. By incorporating both values in a scaled sum, both
the company's profits and the technician's preferences can be optimized.

As per claims 5 and 40, Walker et al. disclose all the limitation of claims 4 and 39 wherein: selecting comprises selecting the determined resource that has a highest weighted business value (see column 2, lines 8-12, a combination of weighted business values is taught. Walker et al. uses the lowest sum combination rather than the largest sum to find the best combination).

Walker does not explicitly disclose selecting the determined resource that has a highest sum of the weighted business value and the weighted resource treatment value. However, Bushey et al. teaches creating an agent model using weights and matching that model with the customer model that has the highest match score (see column 4, lines 1-3). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the disclosure by Walker et al. to score the work items and resources, as taught by Bushey et al., since it allows them to be matched based on an optimal pairing of high priority work items and high employee preferences.

As per claims 6 and 41, Walker et al. disclose all the limitations of claims 3 and 38 wherein: the resource treatments of a resource comprise a time since the resource became available and a time that the resource has not spent serving work items (see column 1, lines 61-62, the time that the resource is available is forecasted).

As per claims 7 and 42, Walker et al. disclose all the limitations of the method of claims 6 and 41, wherein the treatments of the resource further comprise a measure of an effect that serving of the work item would have on a goal of the resource (see

column 2, lines 8-12, the resource and the work item with the smallest cost combination are matched, by keeping a small cost combination, the resource can earn a higher profit from the work item).

As per claims 8 and 43, Walker et al. disclose all the limitations of claims 7 and 42 wherein the measure of the effect comprises a difference between (a) a distance of an actual allocation of worktime of the resource among skills from a goal allocation of the work time of the resource among the skills and (b) a distance of an estimated allocation of the worktime a of the resource among the skills if the resource serves the work item from the goal allocation (see figure 16, and column 7, lines 35-59, the time that the resource completes the work item is predicted and displayed on the matrix; when the resource states that the work item is completed on time, early or late, the matrix changes and the values are recalculated to create low cost matches of the highest priority work items).

(Amended)   As per claims 9 and 44, Walker et al. discloses a method of selecting a resource for a work item, a computer-readable medium containing instructions which, when executed in a computer, cause the computer to perform selection of a resource for a work item, comprising:

determining available resources that possess skills needed by the work item (see column 4, lines 8-12, the work item, or job, may require a resource to have a particular skill); and

for each of the determined resources, determining a business value comprising a sum across all skills of a product of a skill level of the resource in the skill and a skill weight of the work item for the skill (see column 7, lines 11-24, every resource, or technician, contains a skill level and is weighted according to this skill level when combined with a work item, or job).

Walker et al. does not explicitly disclose for each of the determined resources, determining a resource treatment value, the resource treatment value being a measure of how the resource is spending time compared with other resources and goals of the individual resource, the resource treatment value comprising a sum across all resource treatments of a product of a value of the resource for the resource treatment and a weight of the work item for the resource treatment; and selecting a determined resource that has a best combined score of its business value and its resource treatment value, to serve the work item. However, Bushey et al. discloses measuring how a resource is spending time compared with other resources and that resource's goals by creating an agent model (by weighting attributes) and comparing the customer's model with the agents' models (see column 4, lines 1-33). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the disclosure by Walker et al. to create a resource treatment value, as taught by Bushey et al., since it allows a resource, an agent or technician, to have a value in creating an optimal pairing of work items, or customers, and high employee preferences.

As per claims 10 and 45, Walker et al. disclose all the limitations of claims 9 and 44, wherein the resource treatments of a resource comprise a time since the resource became available, a time that the resource has spent not serving work items, and a measure of an effect that serving the work item would have on a goal of the resource (see column 1, lines 61-62, the time that the resource is available is forecasted and column 14, lines 20-24, the resource that has completed a work item and has no new tasks assigned a new task by the method shown in figure 5, the new allocation would be based on the values calculated using the particular resource and the priority of the available work items to determine the best combination).

As per claims 11 and 46, Walker et al. discloses all the limitations of claims 9 and 44 wherein:

determining a business value comprises determining a scaled business value comprising the business value scaled by a first scaling factor that is common to all of the determined resources (see figure 12, and column 7, lines 11-24, the weights for probabilities are applied to all the resources having particular skills or other time involved in carrying out a work item);

Walker et al. does disclose scaling values using probabilities (see column 6, lines 64-67 through column 7, lines 1-24). However, Walker et al. does not explicitly disclose determining a resource treatment value that comprises for each resource treatment, determining a scaled value of the resource comprising the value of the resource for that resource treatment scaled by a scaling factor that is common for that resource

treatment to all of the determined resources, and determining a scaled resource treatment value comprising a sum, scaled by a second scaling factor that is common to all of the determined resources, across all resource treatments of a product of the scaled value of the resource for the resource treatment and a weight of the work item for the resource treatment.   Bushey et al. teaches allowing employees to preference attributes using weights to create the agent model (see column 4, lines 1-3). Bushey et al.'s weighted models could be scaled. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the disclosure by Walker et al. to include creating a scaled resource treatment value as it allows a resource, agent, or technician, to have a value in creating an optimal pairing of work items' or customers' preferences and a resource or employee's preferences. One would be motivated to scale the resource value as scaling a value allows it increases the accuracy of the comparison.

Walker et al. also does not disclose selecting a determined resource that has a best sum of its scaled business value and scaled resource treatment value to serve the work item. However, Bushey et al. discloses creating a resource treatment value by allowing agents to weight attributes for the agent model and matching the agent model to the customer model and create a highest match score (see column 4, lines 1-33). It would have been obvious for one of ordinary skill in the art at the time of the invention to modify the disclosure by Walker et al. to include creating a best sum of its scaled business value and scaled resource treatment value, as taught by Bushey et al., as it optimizes both the customer's satisfaction and the agent or technician's preferences.

As per claims 12 and 47, Walker et al. disclose all the limitations of claims 11 and 46 wherein: each scaling factor comprises a fraction having in its denominator a maximum value of the value to which said scaling factor applies of any of the resources (see column 7, lines 11-24, the scaling factor is a probability, therefore, its value can only be a number between zero and one).

(Amended)   As per claim 13, Walker et al. disclose a method of selecting a work item for a resource, comprising:

determining available work items that need skills possessed by the resource (see column 1, lines 61-62, column 2, lines 8-12, and column 4, lines 8-23, there will be forecasts predicting when the resources will become available, when the resources, or technicians, become available they will be assigned work items, or jobs; only resources with the necessary skills will be matched with the work item);

for each of the determined work items, determining a business value of having the resource service the work item the business value being a measure of qualification of the resource for servicing of the work item based on skills of the resource and skill requirements of the work item (see column 1, lines 65-67, through column 2, lines 1-12, and column 3, lines 1-16, the business value is determined by finding the amount of time it would take the resource, or technician, to complete the work item, or job, the business value is a measure of the qualification of the resource and the work item based on skills and requirements).

Walker et al. does not explicitly disclose determining a value to the work item of being serviced by the resource, the value to the work item being a measure of how the work item is treated compared to other work items and treatment goals of the individual work item; and selecting a determined work item that has a best-combined value of the business value and the value to the work item to be served by the resource. However, Bushey et al. teaches creating a model of the customer based on their preferences, skills, and other attributes (see column 3, lines 14-67). Bushey et al. also teaches selecting a determined work item, or customer, that has a best-combined value of the business value and the value to the work item to be served by the resource as the highest match score between the agent and the resource is selected (see column 4, lines 1-33). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention modify the disclosure by Walker et al. to determine the value of the work item and select the best combined business and work item value to the job, as taught by Bushey et al., since this method selects the most skilled resource to work with the most compatible customer thus improving both customer and employee satisfaction.

As per claim 14, Walker et al. disclose all the limitations of the method of claim 13 wherein: determining business value comprises determining the business value weighted by a business value weight corresponding to the work item (see column 7, lines 18-24, a weight is considered when determining the value for the work item).

Walker et al. does disclose weighted values (see column 7, lines 35-59). However, Walker et al. does not explicitly disclose determining a value to the work item

comprises determining the value to the work item weighted by a work item value weight corresponding to the work item; and selecting comprises selecting a determined work item that has a best combined value of the weighted business value and the weighted value to the work item. Bushey et al. discloses using customer attributes with weights to create the customer model (see column 3, lines 14-67). This customer model is then used to create the best-combined match for the resource, agent, and work item, customer. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the disclosure by Walker et al. to include weighting a work item as weighting a value allows it to be accurately compared with other values. It would also be obvious for one to select the best combined business and work item value as this method selects the most skilled resource to work with the most compatible customer thus improving both customer and employee satisfaction.

As per claim 15, Walker et al. disclose all the limitations of the method of claim 14 wherein: determining a business value comprises determining a weighted business value as a product of (a) the business value weight corresponding to the work item (see column 7, lines 11-24, the weight corresponds to the work item); and

(b) a sum of products of a level of each said needed skill of the resource and a weight of said needed skill of the work item (see column 7, lines 11-24, a cost will be weighted for a work item in which the resource needs a particular skill).

Walker et al. does not explicitly teach determining a value to the work item comprises determining a weighted work item treatment value as a product of (c) a work

item treatment weight corresponding to the work item; and (d) a sum of products of each treatment of the work item and a weight of the treatment of the a work item. However, Bushey et al. does teach the use of attributes and weights in creating the customer model (see column 2, lines 56-59). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the disclosure by Walker et al. to weight a work item and a sum of products of each treatment of the work item as weighting a value allows the value to be accurately compared to other values so a best match can be found.

As per claim 16, Walker et al. discloses all the limitations of the method of claim 15. Walker et al. does not explicitly disclose wherein the sums of products are scaled sums, and the treatments are scaled treatments. However, Bushey et al. discloses weighting the different customers attributes to create the model and using the model scores to create the best match (see column 3, lines 3, lines 14-65, through column 4, lines 1-29). Bushey et al. can also scale the scores. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to scale the sums of the products and the treatments as this selects the most skilled resource to be paired with the optimal work item or customer.

As per claim 17, Walker et al. disclose all the limitations of the method of claim 16. Walker does not explicitly disclose selecting the determined work item that has a highest sum of the weighted business value and the weighted work item treatment

value. Bushey et al. discloses that the highest match score between the customer and

the agent (see column 4, lines 7-30). Therefore, it would have been obvious to one of

ordinary skill in the art at the time of the invention to select the highest sum of the

weighted business and work item values as this method selects the most skilled

resource, agent, to work with the most optimal work item or customer.

As per claim 18, Walker et al. disclose all the limitations of the method of claim

15 wherein the work item treatments of a work item comprise a time that the work item

has been waiting for service and an estimated time that the work item will have to wait

for service (see column 3, lines 53-65, and column 4, lines 40-41, a time is determined

when the work item should be performed).

As per claim 19, Walker et al. disclose all the limitations of the method of claim

18 wherein the treatments of a work item further comprise a time by which the work item

has exceeded its target wait time (see column 6, lines 53-63, the cost function for each

work item indicates if the target wait time or agreed upon time has been exceeded).

As per claim 20, Walker et al. discloses all the limitations of the method of claim

18 wherein the estimated wait time that the work item will have to wait for service

comprises a product of (a) a ratio of a total number of work items waiting for service and

an average number of work items waiting for service and (b) a sum of average wait

times of individual said needed skills each weighted by a ratio of the weight of said

individual skill and a sum of the weights of the needed skills. (see figure 16, and column 6, lines 53-63 and column 7, lines 11-24, and 35-59, the time is estimated for a work item and weighted, it is predicted and displayed on the matrix and assigned to a resource who has the skills needed to complete the work item, a ratio and the average wait would be easily determined from the matrix as priority is assigned to every received work item).

(Amended)   As per claim 21, Walker et al. discloses a method of selecting a work item for a resource, comprising: determining available work items that need skills possessed by the resource (see column 4, lines 8-12, the work item, or job, may require a resource, or technician, to have a particular skill); and

for each of the determined work items, determining a business value comprising a sum across all skills of a product of a skill level of the resource in the skill and a skill weight of the work item for the skill (see column 7, lines 11-24, every resource contains a skill level and is weighted according to this skill level when combined with a work item.

Walker et al. does not explicitly disclose for each of the determined work items, determining a work item treatment value, the work item treatment value being a measure of how the work item is treated compared to other work items and treatment goals of the individual work item, the work item treatment value, comprising a sum across all work item treatments of a product of the value of the work item for the work item treatment and a weight of the a work item forth a work item treatment; and selecting a determined work item that has a best combined score of its business value

and work item treatment value, to be served by the resource. However, Bushey et al. discloses each of the customers and creating a weighted attribute model for each customer (see column 3, lines 14-67). Bushey et al. also discloses comparing the customer model with the agent model to determine the highest match score (see column 4, lines 7-9). If the customer cannot have the highest score matched agent, after a predetermined period of time the second best matching agent answers the call 9see column 4, lines 20-29). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention modify the disclosure by Walker et al. to determine a customer, or work item, treatment value comprising a sum across all work item treatments and select a determined work item that has a best combined score to be served by the agent, or resource, as this allows the most skilled resource, or agent, to be matched with the most compatible customer or work item thus improving both customer and employee satisfaction.

As per claim 22, Walker et al. disclose all the limitations of the method of claim 21 wherein: the work item treatments of a work item comprise a time that the work item has spent waiting to be serviced, an estimated time that the item will spend waiting to be serviced, and a time by which the work item has exceeded its target waiting time (see column 16, lines 56-67, through column 17, lines 1-5, the work items are divided into categories of priority, the time dependent cost function is found for every work item which calculates the waiting time).

As per claim 23, Walker et al. disclose all the claims of the method of claim 21 wherein: determining a business value comprises determining a scaled business value comprising the business value scaled by a first scaling factor that is common to all of the determined work items (see figure 12, and column 7, lines 11-24, the weights for probabilities are applied to all the work items needing a particular set of skills).

Walker et al. discloses summing and scaling values (column 7, lines 11-24). However, Walker et al. does not explicitly disclose determining a scaled value of the work item comprising the value of the work item treatment scaled by a scaling factor that is common for that work item treatment to all of the determined work items; and determining a scaled work item treatment value comprising a sum, scaled by a second scaling factor that is common for all of the determined work items, across all work item treatments of a product of the scaled value of the work item treatment and a weight of the work item for the work item treatment. However, Bushey et al. discloses creating a customer model using customer attributes, weights, and other information (see column 3, lines 14-65). Bushey et al. models could be scaled. Bushey et al.'s customer model is compared to agent models to determine the highest match score (see column 4, lines 7-9). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to determine a scaled work item treatment value as this allows the different scaled values to be accurately compared.

Walker et al. also does not explicitly disclose selecting a determined work item that has a best sum of its scaled business value and its scaled work item treatment value, to be is served by the resource. Bushey et al. discloses creating a highest

matched score between the resource's or agent's model and the customer's or work

item's model.   Therefore, it would have been obvious to one of ordinary skill in the art at

the time of the invention to modify the disclosure by Walker et al. to include selecting a

determined work item that has a best sum value as this allows the most skilled resource

to work to be matched with the most compatible customer or work item thus improving

both customer and employee satisfaction.

As per claim 24, Walker et al. disclose all the limitations of the method of claim

23 wherein: each scaling factor comprises a fraction having in its denominator a

maximum value of the a value to which said scaling factor applies of any of the work

items (see column 7, lines 11-24, the scaling factor is a probability, therefore, its value

can only be a number between zero and one).

As per claim 27, Walker et al. disclose an apparatus comprising a processor that

executes instructions to effect the me

thod of one of the claims 1-24 (see column 5, lines 49-57, the apparatus performs the

methods listed in claims 1-24).

(Amended) As per claim 30, Walker et al. disclose an apparatus for selecting a work

item for a resource, comprising:

Means for determining available work items that need skills possessed by the resource (see column 1, lines 63-67, and column 4, lines 8-12, the work item, or job, may require a resource, or technician, to have a particular skill);

Means for determining, for each of the determined work items, a business value of having the resource service the work item, the business value being a measure of qualification of the resource for servicing the work item based on skills of the resource and skills of the resource and skill requirements of the work item (see column 1, lines 65-67, through column 2, lines 1-12, and column 3, lines 1-16, the business value is determined by finding the amount of time it would take the resource, or technician, to complete the work item, or job, the business value is a measure of the qualification of the resource and the work item based on skills and requirements).

Walker et al. does not explicitly disclose a means for determining a value to the work item of being serviced by the resource, the value to the work item being a measure of how the work item is treated compared to other work items and treatment goals of the individual work item, the work item treatment value comprising a sum across all work item treatments of a product of the value of the work item for the work item treatment and a weight of the work items for the work item treatment; and a means for selecting a determined work item that has a best-combined value of the business value and the value to the work item to be served by the resource. However, Bushey et al. discloses creating a weighted attribute model for each customer (see column 3, lines 14-67). Bushey et al. also discloses comparing the customer model with the agent model to determine the highest match score (see column 4, lines 7-9). If the customer cannot

have the highest score matched agent, after a predetermined period of time the second

best matching agent answers the call (see column 4, lines 20-29). Therefore, it would

have been obvious to one of ordinary skill in the art at the time of the invention to modify

the disclosure by Walker et al. to include determining a customer, or work item,

treatment value comprising a sum across all work item treatments and select a

determined work item that has a best combined score to be served by the agent, or

resource, as this allows the most skilled resource, or agent, to be matched with the

most compatible customer or work item thus improving both customer and employee

satisfaction.

(Amended)   As per claim 31, Walker et al. discloses an apparatus for selecting a work

item for a resource comprising:

Means for determining available work items that need skills possessed by the

resource (see column 1, lines 63-67, and column 4, lines 8-12, the work item, or job,

may require a resource, or technician, to have a particular skill);and

Means for determining, for each of the determined work items, determining a

business value comprising a sum across all skills of a product of a skill level of the

resource in the skill and a skill weight of the work item for the skill (see column 7, lines

11-24, every resource contains a skill level and is weighted according to this skill level

when combined with a work item.

Walker et al. does not explicitly disclose a means for determining, for each of the

determined work items, determining a work item treatment value, the work item

treatment value being a measure of how the work item is treated compared to other

work items and treatment goals of the individual work item, the work item treatment

value comprising a sum across all work item treatments of a product of the value of the

work item for the work item treatment and a weight of the a work item forth a work item

treatment; and a means for selecting a determined work item that has a best combined

score of its business value and work item treatment value, to be served by the resource.

However, Bushey et al. discloses creating a weighted attribute model for each customer

(see column 3, lines 14-67). Bushey et al. also discloses comparing the customer

model with the agent model to determine the highest match score (see column 4, lines

7-9). If the customer cannot have the highest score matched agent, after a

predetermined period of time the second best matching agent answers the call (see

column 4, lines 20-29). Therefore, it would have been obvious to one of ordinary skill in

the art at the time of the invention to modify the disclosure by Walker et al. to determine

a customer, or work item, treatment value comprising a sum across all work item

treatments and select a determined work item that has a best combined score to be

served by the agent, or resource, as this allows the most skilled resource, or agent, to

be matched with the most compatible customer or work item thus improving both

customer and employee satisfaction.

(Amended)   As per claim 34, Walker et al. disclose an arrangement for selecting a

resource for a work item, comprising:

An effector of determining available work items that need skills possessed by the resource (see column 1, lines 63-67, and column 4, lines 8-12, the work item, or job, may require a resource, or technician, to have a particular skill);

An effector of determining, for each of the determined work items, a business value of having the resource service the work item, the business value being a measure of qualification of the resource for servicing the work item based on skills of the resource and skills of the resource and skill requirements of the work item (see column 1, lines 65-67, through column 2, lines 1-12, and column 3, lines 1-16, the business value is determined by finding the amount of time it would take the resource, or technician, to complete the work item, or job, the business value is a measure of the qualification of the resource and the work item based on skills and requirements).

Walker et al. does not explicitly disclose an effector of determining a value to the work item of being serviced by the resource, the value to the work item being a measure of how the work item is treated compared to other work items and treatment goals of the individual work item, the work item treatment value; and an effector of selecting a determined work item that has a best-combined value of the business value and the value to the work item to be served by the resource. However, Bushey et al. discloses creating a weighted attribute model for each customer (see column 3, lines 14-67). Bushey et al. also discloses comparing the customer model with the agent model to determine the highest match score (see column 4, lines 7-9). If the customer cannot have the highest score matched agent, after a predetermined period of time the second best matching agent answers the call (see column 4, lines 20-29). Therefore, it would

have been obvious to one of ordinary skill in the art at the time of the invention to modify

the disclosure by Walker et al. to determine a customer, or work item, treatment value

comprising a sum across all work item treatments and select a determined work item

that has a best combined score to be served by the agent, or resource, as this allows

the most skilled resource, or agent, to be matched with the most compatible customer

or work item thus improving both customer and employee satisfaction.

(Amended)   As per claim 35, Walker et al. disclose an arrangement for selecting a

resource for a work item, comprising:

An effector of determining available work items that need skills possessed by the

resource (see column 1, lines 63-67, and column 4, lines 8-12, the work item, or job,

may require a resource, or technician, to have a particular skill); and

An effector of determining, for each of the determined work items, a business

value comprising a sum across all skills of a product of a skill level of the resource in the

skill and a skill weight of the work item for the skill (see column 7, lines 11-24, every

resource contains a skill level and is weighted according to this skill level when

combined with a work item.

Walker et al. does not explicitly disclose an effector of determining, for each of

the determined work items, a work item treatment value, the work item treatment value

being a measure of how the work item is treated compared to other work items and

treatment goals of the individual work item, the work item treatment value comprising a

sum across all work item treatments of a product of the value of the work item for the

work item treatment and a weight of the a work item forth a work item treatment; and an

effector of selecting a determined work item that has a best combined score of its

business value and work item treatment value, to be served by the resource. .

However, Bushey et al. discloses creating a weighted attribute model for each customer

(see column 3, lines 14-67). Bushey et al. also discloses comparing the customer

model with the agent model to determine the highest match score (see column 4, lines

7-9). If the customer cannot have the highest score matched agent, after a

predetermined period of time the second best matching agent answers the call (see

column 4, lines 20-29). Therefore, it would have been obvious to one of ordinary skill in

the art at the time of the invention to modify the disclosure by Walker et al. to determine

a customer, or work item, treatment value comprising a sum across all work item

treatments and select a determined work item that has a best combined score to be

served by the agent, or resource, as this allows the most skilled resource, or agent, to

be matched with the most compatible customer or work item thus improving both

customer and employee satisfaction.

(Amended)   As per claim 48, Walker discloses a computer-readable medium

containing instructions which, when executed in a computer, cause the computer to

perform selection of a work item for a resource, comprising:

Determining available work items that need skills possessed by the resource

(see column 1, lines 63-67, and column 4, lines 8-12, the work item, or job, may require

a resource, or technician, to have a particular skill); and

For each of the determined work items, determining a determining a business value of having the resource service the work item, the business value being a measure of qualification of the resource for servicing the work item based on skills of the resource and skills of the resource and skill requirements of the work item (see column 1, lines 65-67, through column 2, lines 1-12, and column 3, lines 1-16, the business value is determined by finding the amount of time it would take the resource, or technician, to complete the work item, or job).

Walker et al. did not explicitly disclose for each of the determined work items, determining a value to the work item of servicing by the resource, the value to the work item being a measure of how the work item is treated compared to the other work items and treatment goals of the individual work item; and selecting a determined work item that has a best combined value of the business value and the value to the work item, to serve the resource. However, Bushey et al. discloses creating a weighted attribute model for each customer (see column 3, lines 14-67). Bushey et al. also discloses comparing the customer model with the agent model to determine the highest match score (see column 4, lines 7-9). If the customer cannot have the highest score matched agent, after a predetermined period of time the second best matching agent answers the call (see column 4, lines 20-29). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention toomodify the disclosure by Walker et al. to determine a customer, or work item, treatment value comprising a sum across all work item treatments and select a determined work item that has a best combined score to be served by the agent, or resource, as this allows the most skilled resource, or

agent, to be matched with the most compatible customer or work item thus improving

both customer and employee satisfaction.

(Amended)   As per claim 49, Walker et al. disclose all the limitations of claim 48

wherein determining a business value comprises:

determining the business value weighted by a business value weight

corresponding to the work item (see column 7, lines 18-24, a weight is considered when

determining the value for the work item).

Walker et al. does not explicitly disclose determining a value to the work item

comprises determining the value to the work item weighted by a work item value weight

corresponding to the work item and selecting comprises selecting a determined work

item that has a best combined value of the weighted business value and the weighted

value to the work item. Bushey et al. discloses creating a weighted model using

attributes for the customer (see column 3, lines 24-65). Bushey et al. also discloses

comparing the customer model with agents' models to determine the highest match

score (see column 4, lines 4-9). Therefore, it would have been obvious to one of

ordinary skill in the art at the time of the invention to create a value to the work item

weighted by a work item value weight corresponding to the work item as this would

allow the work item to ensure that their most important attributes are matched first. By

creating a value that comprises selecting a determined work item that has a best

combined value of the weighted business value and the weighted value to the work

item, the company many increase customer and agent satisfaction by optimal pairing

and therefore increase profit for the company.

As per claim 50, Walker et al. disclose all the limitations of the method of claim

49 wherein: determining a business value comprises determining a weighted business

value as a product of

(a) the business value weight corresponding to the work item (see column 7,

lines 11-24, the weight corresponds to the work item); and

(b) a sum of products of a level of each said needed skill of the resource and a

weight of said needed skill of the work item (see column 7, lines 11-24, a cost will be

weighted for a work item in which the resource needs a particular skill).

Walker et al. does disclose creating a weight corresponding to a work item (see

column 7, lines 11-24). Walker does not explicitly teach determining a value to the work

item comprises determining a weighted work item treatment value as a product of (c) a

work item treatment weight corresponding to the work item and (d) a sum of products of

each treatment of the work item and a weight of the treatment of the work item.

However, Bushey et al. discloses using all the customer attributes and information to

create a weighted model (see column 3, lines 14-65). Therefore, it would have been

obvious to one of ordinary skill in the art at the time of the invention to modify the

disclosure by Walker et al. to include creating weighted value for the work item as a

product of the weighted work item and a sum of products of each treatment of the work

item and a weight of the treatment of the work item, as taught by Bushey et al., as this

would allow the work items to have the best matched agent or resource. By creating

weighted work item treatment value, the company many increase productivity and profit

for the company.

As per claim 51, Walker et al. disclose all the limitations of claim 50. Walker

does disclose scaling business values (see column 7, lines 11-24, the weights are used

to scale values). Walker does not explicitly disclose the sum of the products being

scaled. However, Bushey et al. discloses creating a model using weights (see column

3, lines 56-65). These models can also be scaled. Therefore, it would have been

obvious to one of ordinary skill in the art at the time of the invention to scale the sum of

the products as by incorporating both values in a scaled sum, both the customers' and

the agents' preferences are optimized.

(Amended)   As per claims 52, Walker et al. disclose all the limitation of claim 51

wherein: selecting comprises selecting the determined work item that has a highest

weighted business value (see column 2, lines 8-12, a combination of weighted

business values is taught. Walker et al. uses the lowest sum combination rather than

the largest sum to find the best combination).

Walker et al. does not explicitly disclose selecting the determined work item that

has a highest sum of the weighted business value and the weighted work item

treatment value. Bushey et al. explicitly discloses matching the customer model and

agent model with the highest matching score. Therefore, it would have been obvious to

one of ordinary skill in the art at the time of the invention to modify the disclosure by

Walker et al. to score the work items and resources, as taught by Bushey et al., as it

allows them to be matched based on an optimal pairing of work items and employees.

As per claim 53, Walker et al. disclose all the limitations of claim 50 wherein: the

work item treatments of a work item comprise a time that work item has been waiting for

service (see column 17, lines 36-41,the work item is waiting for service). Walker et al.

do not explicitly disclose an estimated time that the work item will have to wait for

service. However, Bushey et al. discloses a maximum wait time for the agent (see

column 4, lines 26-29). Furthermore, it is old and well known in the art to provide an

estimate as to how long a work item will need to wait to be serviced. Therefore, it would

have been obvious to one of ordinary skill in the art at the time of the invention to modify

the disclosure by Walker et al. to include providing an estimate on the time a work item

will have to wait as it allows one to plan around when the resource will service the work

item.

As per claim 54, Walker et al. disclose all the limitations of the method of claim

53, wherein the treatments of the work item further comprise a time by which the work

item has exceeded its target wait time (see column 2, lines 8-12, the resource and the

work item with the smallest cost combination are matched, by keeping a small cost

combination, the resource can earn a higher profit from the work item).

(Amended)   As per claim 55, Walker et al. disclose all the limitations of claim 53,

wherein the time that the resource completes the work item is predicted and displayed

on the matrix. When the resource states that the work item is completed on time, early

or late, the matrix changes and the values are recalculated to create low cost matches

of the highest priority work items (see figure 16, and column 7). Walker et al. does not

explicitly disclose an estimated weight time that the work item will have to wait for

service comprises a product of (a) a ratio of a total number of work items waiting for

service and an average number of work items waiting for service and (b) a sum of

average wait times of individual said needed skills each weighted by a ratio of the

weight of said individual skill and a sum of the weights of the needed skills. However,

Bushey et al. discloses creating a maximum wait time for its work items (see column 4,

lines 26-29). Furthermore, it is old and well known to estimate the wait time by using a

ratio of the total work items and a sum of the average weight times. Therefore, it would

have been obvious to one of ordinary skill in the art to modify the disclosure by Walker

et al. to include providing an estimate on the time a work item will have to wait as it

allows one to plan around when the resource will service the work item.

(Amended)   As per claim 56, Walker et al. discloses a computer readable medium

containing instructions which, when executed in a computer, cause the computer to

perform selection of a resource for a work item, comprising:

determining available work items that need skills possessed by the resource (see

column 1, lines 63-67, and column 4, lines 8-12, the work item, or job, may require a

resource, or technician, to have a particular skill); and

for each of the determined work items, determining a business value comprising

a sum across all skills of a product of a skill level of the resource in the skill and a skill

weight of the work item for the skill (see column 1, lines 65-67, through column 2, lines

1-12, and column 3, lines 1-16, the business value is determined by finding the amount

of time it would take the resource, or technician, to complete the work item, or job).

Walker et al. does not explicitly disclose for each of the determined work items,

determining a work item treatment value, the work item treatment value being a

measure of how the resource is spending time compared with other work items and

treatment goals of the individual work item, the work item treatment value comprising a

sum across all work item treatments of a product of a value of the work item for the work

item treatment and a weight of the work item for the work item treatment; and selecting

a determined work item that has a best combined score of its business value and its

work item treatment value, to be served by the resource. However, Bushey et al.

discloses creating a weighted attribute model for each customer (see column 3, lines

14-67). Bushey et al. also discloses comparing the customer model with the agent

model to determine the highest match score (see column 4, lines 7-9). If the customer

cannot have the highest score matched agent, after a predetermined period of time the

second best matching agent answers the call 9see column 4, lines 20-29). Therefore, it

would have been obvious to one of ordinary skill in the art at the time of the invention

modify the disclosure by Walker et al. to incorporate determining a customer, or work item, treatment value comprising a sum across all work item treatments and select a determined work item that has a best combined score to be served by the agent, or resource in the same conventional manner as disclosed by Bushey et al. because this would allow the most skilled resource, or agent, to be matched with the most compatible customer or work item thus improving both customer and employee satisfaction.

(Amended) As per claim 57, Walker et al. disclose all the limitations of claim 56, wherein the work item treatments of a work item comprise a time that the work item has spent time waiting to be serviced (see column 17, lines 36-41,the work item is waiting for service). Walker et al. does not explicitly disclose an estimated time that the item will spend waiting to be serviced, and a time by which the work item has exceeded its target waiting time. Bushey et al. discloses creating a maximum wait time for the customers or work items (see column 4, lines 26-29). However, it is old and well known in the art to provide an estimate as to how long a work item will need to wait to be serviced and have a target waiting time. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the disclosure by Walker et al. to include providing an estimate and target waiting time for a work item as it allows one to plan around when the resource will service the work item.

(Amended) As per claim 58, Walker et al. discloses all the limitations of claim 56 wherein:

determining a business value comprises determining a scaled business value

comprising the business value scaled by a first scaling factor that is common to all of

the determined work items (see figure 12, and column 7, lines 11-24, the weights for

probabilities are applied to time involved in carrying out a work item);

Walker et al. does disclose scaling values using probabilities (see column 6, lines

64-67 through column 7, lines 1-24) and creating priorities of work items. However,

Walker et al. does not disclose selecting a determined work item that has a best sum of

its scaled business value and scaled work item treatment value, to be served by the

resource. Bushey et al. discloses creating a customer model using information and

attributes and weights (see column 3, lines 14-65). Bushey et al.'s model can be

scaled. Therefore, it would have been obvious for one of ordinary skill in the art at the

time of the invention to modify the disclosure by Walker et a. to create a best sum of its

scaled business value and scaled resource treatment value as it optimizes both the

customer's or work item's and the agent's or resource's preferences.

(Amended)   As per claim 59, Walker et al. disclose all the limitations of claim 58

wherein: each scaling factor comprises a fraction having in its denominator a maximum

value of the value to which said scaling factor applies of any of the work item (see

column 7, lines 11-24, the scaling factor is a probability, therefore, its value can only be

a number between zero and one).

3.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

Kohler et al. (U.S. P.N. 5,206,903) discloses determining an optimal way to

match an incoming call with an agent.

McDonough et al. (U.S. P.N. 6,070,142) discloses a rule based method for

matching a call with an employee.

McGovern et al. (U.S. P.N. 5,918,207) discloses a system for predictive resource

planning.

Tonisson (U.S. P.N. 5,903,641) discloses an automatic call handling system .

Bogart et al. (U.S. P.N. 6,163,607) discloses an optimal call handling system.

4.   Any inquiry concerning this communication or earlier communications from the
examiner should be directed to **Rebecca Bachner** whose telephone number is 703-
305-1872. The examiner can normally be reached on Monday - Friday from 8:30am to
5:00pm. If attempts to reach the examiner by telephone are unsuccessful, the
examiner's supervisor, **Tariq Hafiz** can be reached on **(703)305-9643**.

Any inquiry of a general nature or relating to the status of this application or
proceeding should be directed to the **Receptionist** whose telephone number is **(703)
308-1113**.   Any response to this action should be mailed to:

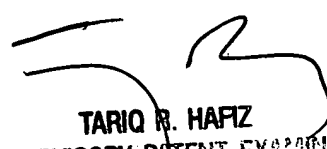*Commissioner of Patents and Trademarks*

Washington D.C. 20231

or faxed to:

(703) 305-7687   Official communications; including After Final

communications labeled "Box AF"

(703) 746-7306   Informal/Draft communications, labeled "PROPOSED"

Hand delivered responses should be brought to Crystal Park 5, 2451 Crystal Drive,
Arlington, VA, 7th floor receptionist.

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RMB
June 18, 2003

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TECHNOLOGY CENTER 3600